



Therapeutics

Second Quiz Past Papers

Collected by:
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Therapy of Diabetes Mellitus

1) The drug that destroys the beta cells of pancreas?

Pentamidine.

2) Which of the following drugs cause DM type 2?

Cyclosporine.

3) Which of the following drugs is not known to cause diabetes?

Spironolactone.

4) Drug causes type 1 DM?

Pyriminil.

5) Which of the following drugs can induce diabetes mellitus by destroying pancreatic B cells?

A. Glucocorticoids

B. Interferon

C. Nicotinic acid

D. Diazoxide

E. Growth hormone

Answer: B

6) Diabetic patient with HTN treated with?

ACEI.

7) 10-year-old boy known to have type 1 diabetes managed with insulin. Presented to the ER in a coma. He previously had convulsions and physical examination revealed tachycardia and sweating. What is the most likely cause?
Hypoglycemia from high dose insulin.

8) Insulin for DKA and HHS?

Crystalline zinc insulin.

✓✓ 9) A 2-year-old with type 1 DM. Presented with coma, hyperglycemia and acidosis. Best insulin to be used is?
IV zink insulin.

✓✓ 10) Patient with type 1 DM developed diabetic ketoacidosis was admitted to ER, you are going to give?
IV regular insulin (zinc crystalline).

✓✓ 11) A 5-year-old boy presented to the emergency room with coma and rapid breathing. The mother told you his problem started withing the last 24 hours with excessive urination and thirst followed by nausea and vomiting. Urine examination was positive for glucose and ketones. Measurement of blood glucose showed hyperglycemia with blood glucose level of 400 mg/dL. Which of the following is the treatment of choice?

A. Subcutaneous insulin

B. Insulin detemir

C. NPH insulin

D. Regular insulin

E. Insulin glargine

Answer: D

12) Used to prevent DM 2?

Metformin.

13) Which of the following mimic the physiology of insulin secretion?

Lispro (7 am), lispro (11 am), lispro (5 pm), glargine (bedtime).

14) An 18-year-old with type 1 DM. On 4-dose treatment in insulin lispro and NPH. He developed erratic postprandial glycemic control. Best choice is?

Pramlintide.

- ✓✓ 15) Diabetic patient with type 1 has a post prandial hyperglycemia even with appropriate dosing with insulin, you are going to add:

Pramlintide.

16) I am a drug that decrease gastric emptying, decrease postprandial glucose and can cause moderate weight loss?

Pramlintide.

17) Wrong about pramlintide?

Can be mixed with insulin.

- ✓✓ 18) Patient with type 2 diabetes, you begin, after lifestyle modifications, with?

Metformin.

- ✓✓ 19) An obese female with type 2 diabetes and her insulin blood levels were high. What is the most appropriate therapy?

Metformin.

20) A 50-year-old obese woman (BMI = 30) has diabetes for 10 years and is poorly controlled on diet and life-style modification. Her insulin blood level was higher than expected reference value. Which of the following drugs is a reasonable treatment to start?

- A. Metformin
- B. Repaglinide
- C. Rosiglitazone
- D. Pramlintide
- E. Glipizide

Answer: A

21) A man was diagnosed with type 2 diabetes, he has normal weight, and he has fasting hyperglycemia. Which one of the following drugs is reasonable to start treatment with?

Glibenclamide.

[Note: this is a glyburide]

22) Combination which can delay the failure of beta cells of pancreas?

Metformin, rosiglitazone and Exenatide.

23) Which one of the following reduce gastric emptying, reduce appetite, stimulate the vagus nerve and stimulate release of

insulin in response to oral meals?

GLP1.

24) Which one of the following drugs cause moderate weight loss and increase pancreatic beta cell mass by decreasing apoptosis?

Exenatide.

25) Which of the following drugs may produce acute pancreatitis?

- A. Metformin
- B. Exenatide
- C. Pramlintide
- D. Miglitol
- E. Glyburide

Answer: B

26) A diabetic patient in oral therapy developed tachycardia, sweating and fatigue, most likely cause?
Glimepiride.

27) Elderly man with type 2 diabetes managed with glyburide and many other drugs developed renal impairment then suffered from recurrent hypoglycemia. What drug should be discontinued?
Glyburide.

28) Which one of the following drug–side effect is mismatched?
Sitagliptin – hypertension.

29) Patient with type 2 diabetes has uncontrolled HTN and heart failure which one of the following drugs is contraindicated?
Pioglitazone.

✓✓ 30) Diabetic patient with heart failure, do not use?
Rosiglitazone.

31) All of the following about antidiabetic medication is true except?
Metformin causes lactic acidosis in alcoholics and patients with lung disease.

32) Which of the following drugs precipitate or exacerbate heart failure by causing sodium and fluid retention?
A. Verapamil
B. Propafenone
C. Cyclophosphamide
D. Rosiglitazone
E. Etanercept
Answer: D

33) Which of the following drugs used in type 2 diabetes mellitus is NOT matched with a recognized adverse effect?
A. Pramlintide – Anorexia
B. Glyburide – Hepatotoxicity
C. Sitagliptin – Nasopharyngitis
D. Metformin – Lipodystrophy
E. Acarbose – abdominal distention
Answer: D

34) Which of the following drugs used in type 2 diabetes mellitus is NOT matched with a recognized adverse effect?
A. Glyburide – hypoglycemia
B. Pramlintide – anorexia
C. Insulin – weight gain
D. Sitagliptin – nasopharyngitis
E. Miglitol – lactic acidosis
Answer: E

35) DM with osteoporosis on metformin and SU not controlled?
Sitagliptin.

[Note: Thiazolidinediones (pioglitazone and rosiglitazone) + canagliflozin (SGLT-2 inhibitors) are associated with osteoporosis]

36) DM and hospitalized?
Insulin.

37) Patient with DM on metformin and repaglinide and still he do not achieve a glycemic control, so you add?
–Answers were not mentioned–

38) Wrong match:
Omega 3 – hyperuricemia.

39) Common side effect of all antidiabetics:
Hypoglycemia.

40) Doesn't cause insulin resistance:

- A. Nicotinic acid
- B. Growth hormone
- C. Diasoxide
- D. Clozapine
- E. Chronic alcoholism

Answer: C

41) Not appropriate for obese patient with DM:
Glibenclamide.

42) Doesn't prevent DM:

- A. Rapaglinde
- B. Liraglutide
- C. Metformin
- D. Wt. reduction
- E. Physical exercise

Answer: A

43) Crystalline Zinc insulin.

44) Wrong:

Metformin with severe renal impairment.

Therapy of Osteoporosis

1) Which of the following drugs that can cause osteoporosis is NOT matched with an appropriate mode of action?

- A. Heparin – stimulates osteoclasts and suppresses osteoblast function
- B. Thiazolidinediones – inhibit osteoblast differentiation and activate osteoclast differentiation
- C. Carbamazepine – decreased functional calcium absorption
- D. Lithium – increase PTH secretion which can cause calcium release from the bone
- E. Canagliflozin – changes serum or urine calcium, vitamin D, or parathyroid hormone

Answer: E

2) Which of the following drug pairs metabolize vitamin D and causes osteoporosis with prolonged use?

Carbamazepine and phenytoin

Wrong about healthy style for osteoporosis?

Medication is given for postmenopausal women.

3) Ca decreases absorption of all of the following except?

- A. Bisphosphonate
- B. PPI
- C. Quinolone
- D. Iron
- E. Tetracycline

Answer: B

4) Most common side effect for stopping bisphosphonate?

GI bleeding and esophageal erosions.

5) Correct option for bisphosphonate?

The patient should remain upright for at least 30 minutes after.

(please refer to slide 42)

6) Which of the following is NOT appropriate concerning bisphosphonates use in osteoporotic patients?

- A. If a patient misses a monthly dose and the next month's dose is less than 6 days away, he can take the missed dose on the morning he remembers
- B. Creatinine clearance should be monitored before each dose of zoledronic acid
- C. Before intravenous bisphosphonates are use, the patient's serum calcium must be normalized
- D. If the patient misses a weekly dose, he can take it the next day
- E. The intravenous bisphosphonates products need to be administered by a healthcare provider

Answer: A

(please refer to slide 43+44..)

7) Wrong about both denosumab and bisphosphonates?

Effect prolonged after discontinuation.

[Note: Only bisphosphonates have sustained effect (increased BMD) after discontinuation]

8) Osteoporosis treatment wrong match?

Teriparatide with hypocalcemia.

9) Wrong about denosumab?

-Answers were not mentioned-

10) Not correct about biphosphonates:

- A. Take Ca supplements at the same time.
- B. 180ml plain water with tablets.
- C. Upright for at least 30 min.
- D. BMD remains for long time after discontinuation.

Answer: A

11) Mainstay in treatment of osteoporosis with Ca and vitamin D:
Bisphosphante.

Therapy of Hypertension

1) All of the following agents can aggravate or precipitate hypertension, EXCEPT:

- A. Oral contraceptives
- B. Paracetamol
- C. Decongestants
- D. Corticosteroids
- E. NSAIDs

Answer: B

2) A 65-year-old with HTN in beta blocker, ACEI, Aspirin and simvastatin. He developed a flu and took diphenhydramine, phenylephrine, and guanfacine (and another drug). His blood pressure increased. Most likely cause?

Phenylephrine.

3) A patient suspects having HTN because of family history, next step?

Daily self-monitoring with approved automated device.

4) According to newest JNC guidelines what is the management of stage 1 hypertension?

Lifestyle modifications and one antihypertensive.

5) First line agents for HTN?

ACEi, ARB, CCB and thiazide.

6) A 42-year-old white female was diagnosed with persistent blood pressure at 140/90. Best management?

Lifestyle modification and thiazide.

7) Wrong combination in the treatment of stage 2 HTN?

Beta blockers and hydralazine.

8) Uncontrolled HTN, on beta blocker, next step?

Add enalapril.

9) About lifestyle modifications which of the following is incorrect?

Exercise for 120 minutes weekly.

10) Which of the following combinations is indicated for treatment of hypertension in a patient also having heart failure with reduced ejection fraction?

- A. Nitroglycerin, furosemide, hydralazine
- B. Indapamide, hydralazine, methyldopa
- C. Spironolactone, atenolol, lisinopril
- D. Valsartan, propranolol, hydrochlorothiazide
- E. Lisinopril, furosemide, bisoprolol

Answer: E

11) Main drug in patient with HTN and coronary artery disease?

Beta blockers.

12) 58 years, female, 15 years with controlled DM. Was diagnosed with HTN and IHD and started on thiazide, enalapril, simvastatin and aspirin. 1 month later her glycemic control was disrupted. Most likely cause is?

Hydrochlorothiazide.

13) A patient with DM type 2, CKD stage 3. His blood pressure measured 155/92 and his creatinine 2.3. He receives enalapril. Best modification of treatment?
Increase enalapril dose.

14) Hypertensive patient managed by Enalapril, metoprolol and stuff. His hypertension is not controlled. What is the most appropriate next step in management?
Increase dose of Enalapril.

15) To prevent recurrent stroke?
You choose thiazide.

16) Which of the following is a reasonable antihypertensive choice in elderly patients?

- A. Diltiazem
- B. Methyldopa
- C. Atenolol
- D. Clonidine
- E. Amlodipine

Answer: E

17) An antihypertensive drug you don't use in COPD?

Lisinopril.

18) Peripheral arterial disease and hypertension?

Carvedilol.

19) Which of the following antihypertensive drugs should be monitored by measuring serum electrolytes?

- A. Atenolol
- B. Verapamil
- C. Methyldopa
- D. Hydrochlorothiazide
- E. Bisoprolol

Answer: D

20) Which of the following antihypertensive drugs should be monitored by measuring serum electrolytes?

- A. Methyldopa
- B. Bisoprolol
- C. Valsartan
- D. Diltiazem
- E. Atenolol

Answer: C

21) Hypertensive emergency?

DON'T decrease BP < 140/90 immediately.

22) Wrong about hypertensive urgency?

Use rapid release nifedipine.

23) Which of the following antihypertensive agents is a good choice for treatment of hypertensive emergencies?

- A. Hydralazine
- B. Bisoprolol
- C. Furosemide
- D. Labetalol
- E. Nifedipine

Answer: D

24) Which of the following antihypertensive agents is NOT a good choice for treatment of hypertensive urgencies?

- A. Nifedipine
- B. Clonidine
- C. Labetalol
- D. Captopril

Answer: A

25) Wrong about hypertensive emergency?

You have to normalize the blood pressure in case of acute ischemic stroke within 36 hours.

26) Which of the following antihypertensives is NOT matched with an appropriate special indication in patients with emergency hypertension?

- A. Fenoldopam – renal insufficiency
- B. Esmolol – aortic dissection
- C. Nicardipine – myocardial ischemia
- D. Hydralazine – eclampsia
- E. Enalaprilat – eclampsia

Answer: E

27) Hydralazine?

Not risk factor for hyperkalemia

28) Hypertensive emergency don't reduce to 130.

29) Long acting dihydropyridine suitable for elderly.

30) Metoprolol with CAD.

31) COPD don't give beta blocker.

Therapy of Acute Coronary Syndromes

1) Disadvantage of using morphine in acute coronary syndrome?

Slows the aspirin absorption.

2) Certain drugs should be initiated prior to hospital discharge for secondary prevention of myocardial infarction. These drugs were proven to decrease mortality, heart failure, re-infarction or stroke, and stent thrombosis. Which of the following combination is known to achieve these goals?

A. Aspirin + ACE inhibitors + high intensity statins + organic nitrates

B. Aspirin + ACE inhibitors + high intensity statins + amlodipine

C. Aspirin + ACE inhibitors + high intensity statins + bisoprolol

D. Aspirin + ACE inhibitors + high intensity statins + clopidogrel

E. Aspirin + ACE inhibitors + high intensity statins + verapamil

Answer: C

3) Secondary prevention x 4?

Statin, Aspirin, ACEI, B-blocker.

4) All decrease mortality in acute coronary syndrome except?

Morphine.

5) Doesn't prevent remodeling?

Loop diuretics.

6) Which of the following is NOT correct about the use of fibrinolytic therapy in patients with ST-elevation myocardial infarction?

A. In the absence of contraindication to fibrinolytic therapy.

B. It is indicated when performing percutaneous coronary intervention is lacking.

C. It is indicated when transfer of the patient to a facility capable of performing percutaneous coronary intervention is impossible.

D. It may be given within 12 hours of onset of symptoms.

E. When patient presentation is delayed beyond 24 hours.

Answer: E

7) Not a contraindication for alteplase?

History of streptokinase use.

8) Which of the following is NOT an indication to the use of anticoagulants in acute coronary syndromes?

A. For patients undergoing fibrinolysis

B. For patients undergoing primary percutaneous coronary intervention

C. For patients with a contraindication to reperfusion therapy

D. For patient with non-ST-elevation acute coronary syndrome

Answer:

(I think that all the above are indications to the use of anticoagulants, please refer to slides 26+27+38)

9) Which of the following anticoagulants is NOT matched with the appropriate duration of therapy in patients with acute coronary syndromes?

A. Bivalirudin – up to 3 days

B. Enoxaparin – up to 8 days

C. Unfractionated heparin – 2 days

D. Fondaparinux – 21 days

Answer: D

10) Correct match of duration?

Clopidogrel – 12 months

11) Mismatch?

Enoxaparin – 21 days

✓✓ 12) Not a benefit from using IV beta blocker?

Early Cardiogenic shock.

13) Which of the following is NOT correct concerning the use of spironolactone to reduce mortality in acute coronary syndrome?

A. The patient should have either heart failure symptoms or diabetes mellitus.

B. The patient should have an ejection fraction of at least 0.55

C. The patient should have started beta-blockers.

D. Monitoring of serum potassium is essential to prevent hyperkalemia.

E. The patient should have started ACE inhibitors.

Answer: B

14) Post MI drugs?

Bisoprolol plus lisinopril and statin.

15) Drug that doesn't prevent remodeling: Nitroglycerin.

16) Wrong match:

Nitroglycerin – Hypotension & Bradycardia

17) Aspirin, Statin, Beta-Blocker, ARB

Therapy of Chronic Heart Failure

✓✓ 1) Which of the following drugs precipitate or exacerbate heart failure by causing cardiotoxicity?

- A. Disopyramide
- B. Diltiazem
- C. Propranolol
- D. Bevacizumab
- E. Rosiglitazone

Answer: D

2) Which of the following antihypertensives may be associated with cardiac decompensation and heart block as adverse reactions?

- A. Valsartan
- B. Diltiazem
- C. Amlodipine
- D. Hydralazine
- E. Lisinopril

Answer: B

3) Cause sodium and water retention in heart failure?

Ticarcillin disodium.

4) Loop diuretics should be used at lower doses in patients with preserved ejection fraction heart failure because of all of the following, EXCEPT:

- A. Development of renal hypoperfusion
- B. Development of renal failure
- C. Reduction of prostaglandin synthesis
- D. Development of hypotension
- E. Development of low cardiac output

Answer: C

5) In a patient with hypertension, dyslipidemia and diabetes mellitus but with NO structural heart disease, drugs may be given to prevent heart failure development. Which of the following pair of drugs is useful in this regard?

- A. Loop diuretic + verapamil
- B. ACEIs + beta-blockers
- C. Thiazide diuretic + spironolactone
- D. Amlodipine + loop diuretic
- E. ACEIs + statins

Answer: E

6) Stage B HF?

Statin, BB, ACEi.

7) Patient with hypertension and heart failure without symptoms, you choose which of the following to improve mortality?

Bisoprolol plus statin plus valsartan.

8) Not used in HFrEF?

Amlodipine.

9) Verapamil?

Not used in HFrEF.

✓✓ 10) Which of the following combination of drugs may be used in treatment of heart failure when there is a contraindication to the use of ACE inhibitors or angiotensin receptor blockers?

- A. Spironolactone + hydralazine
- B. Digoxin + isosorbide dinitrate
- C. Sacubitril + hydralazine
- D. Diltiazem + ivabradine
- E. Isosorbide dinitrate + hydralazine

Answer: E

11) Which of the following drugs may be used in heart failure in patients having a contraindication to the use of beta-adrenergic blockers?

- A. Sacubitril
- B. Digoxin
- C. Valsartan
- D. Sacubitril + valsartan
- E. Ivabradine

Answer: E

12) Which of the following is NOT reduced by ACE inhibitors therapy during treatment of heart failure?

- A. Ventricular remodeling
- B. Myocardial fibrosis
- C. Norepinephrine release
- D. Sodium and water retention
- E. Vasodilator prostaglandins

Answer: E

13) A patient with HFrEF, IHD, BP 110/72, creatinine 2.5, on ACEI, furosemide and beta blocker, next step? Increase lisinopril dose.

✓✓ 14) Patient received bad news and had acute onset chest pain. Exam revealed elevated JVP, S3 heart sound, crackles and a pulse of 180. Which of the following drugs should not be used?

IV metoprolol.

15) Carvedilol?

Not used in patient presented with acute decompensated HF.

16) Which of the following is NOT correct concerning the use of spironolactone in heart failure?

- A. It attenuates cardiac fibrosis
- B. It reduces mortality
- C. It inhibits cardiac collagen deposition
- D. It enhances calcium excretion
- E. It attenuates atherogenesis

Answer: D

17) Not a complication when using ivabradine?

- A. Atrial fibrillation
- B. Vision problem
- C. Hypotension

Answer:

(All of the above are adverse effects of ivabradine)

✓✓✓ 18) A patient with IHD and HTN. He has heart failure with symptoms on less than ordinary exertion. He takes enalapril, bisoprolol, Aspirin and statin. Best modification on treatment?

Add spironolactone.

19) Not common side effect between dihydropyridine and non-dihydropyridine?

- A. Headache
- B. Flushing
- C. Dizziness
- D. Edema
- E. Bradycardia

Answer: E

20) Furosemide spironolactone -pril - for HF patient.

21) Prostaglandin E is not involved in pathogenesis of CHF.

22) Spironolactone and high dose in renal impairment incorrect.

23) Uzumab for cardiotoxicity.